

Date: Monday, 7/9/2007 11:47:03 AM  
User: Kim Johnston

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: STEM		
Job Number	: 33362A				
Estimate Number	: 10399				
P.O. Number	: <b>N/A</b>	Part Number	: D29683		
This Issue	: 7/9/2007	S.O. No.	: <b>N/A</b>	Drawing Number	: D2968
Prsht Rev.	: NC			Project Number	: <b>N/A</b>
First Issue	: <b>N/A</b>	Type	: MACHINED PARTS	Drawing Revision	: <b>BT C</b>
Previous Run	: 32503A			Material	: <b>N/A</b>
Written By	: <u><b>JJA 07.07.09</b></u>	Due Date	: 7/20/2007	Qty:	12 Um: Each
Checked & Approved By	: <u><b>JJA 07.07.09</b></u>				
Comment	: Est.C 03.04.11 Reformat; Incorporated D2968-1/-5 KJ/RF				

### Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M4130NR0750	4130 steel rod .750"
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Comment: Qty.: 0.3762 f(s)/Unit Total : 4.5146 f(s)

Material: AISI 4130 Ø 3/4 " Bar

(M4130N-R0.750)

Batch: M104452

Identify AS D2968-3

2.0 HARDINGE

HARDINGE CNC LATHE SMALL



**Comment:** HARDINGE CNC LATHE SMALL

1-Turn Blank as per Folio FA048 and Dwg D2968

2-Deburr, no sharp edges

3.0 QC2

INSPECT PARTS AS THEY COME OFF MACHINE



**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

4.0 HAAS1

# HAAS CNC VERTICAL MACHINING #1



**Comment:** HAAS CNC VERTICAL MACHINING #1

1- Machine as per Folio FA048 and Dwg D2968

## 2- Debut

5.0 QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: D Date: 21/09/10  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 7/9/2007 11:47:04 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEM

Job Number: 33362A

Part Number: D29683

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

07/09/10

14

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

07/09/10

14

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/09/10

14

Job Completion



U 07-09-10

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

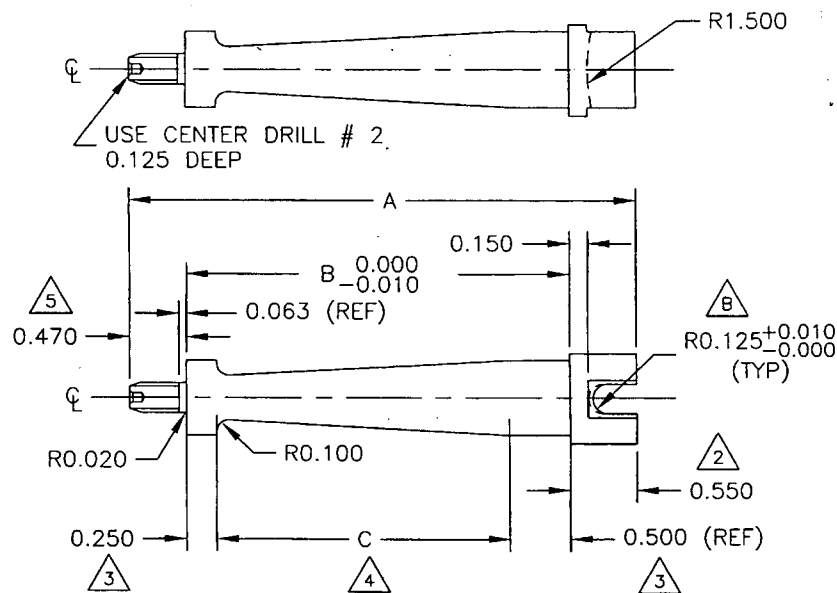
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries





PART NUMBER	A	B	C
D2968-1	5.040	4.020	3.270
D2968-3	4.200	3.180	2.430

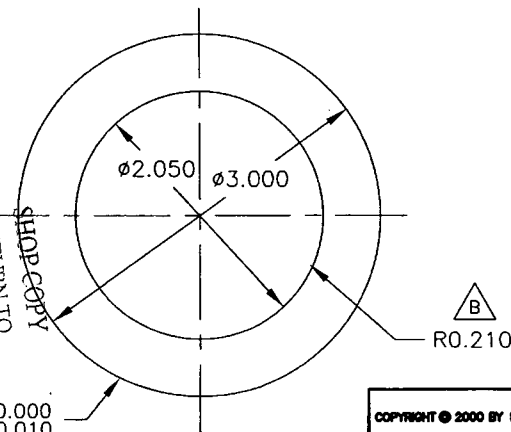
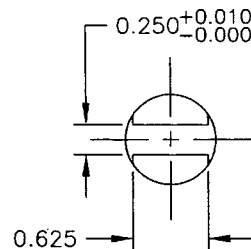
### D2968-1/-3 STEM

### D2968-1 AND D2968-3 STEM:

- 1) MATERIAL: AISI 4130N ROUND BAR PER MIL-S-6758  
OR AMS 6348/6370/6528  
(REF DART SPEC M4130N-RX.XXX)
- 2)  $\phi 0.750$  O.D.
- 3)  $\phi 0.625$  O.D.
- 4) MACHINE UNIFORM TAPER FROM  $\phi 0.363$  O.D.  
TO  $\phi 0.625$  O.D.
- 5) 1/4-28 UNF THREAD WITH 0.063 GRIP
- 6) MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS  
UNLESS OTHERWISE INDICATED
- 7) ALL DIMENSIONS ARE IN INCHES
- 8) TOLERANCES ARE PER DART QSI 018 UNLESS  
OTHERWISE NOTED

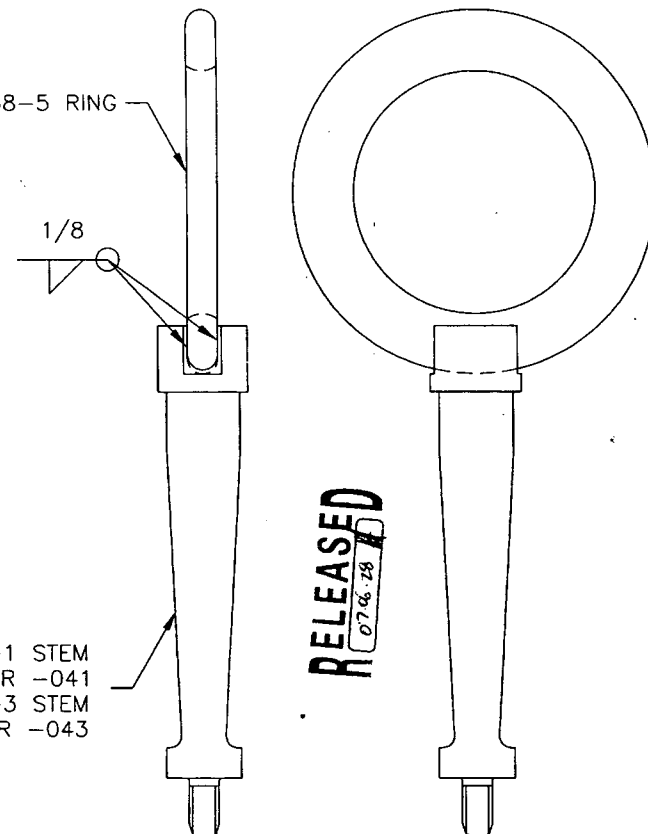
### D2968-5 RING:

- 9) MATERIAL: AISI 4130N TUBING PER MIL-T-6736  
OR AMS 6360/6361/6362/6371/6373/6374  
(REF DART SPEC M4130NT3000W500)
- 10) ALL DIMENSIONS ARE IN INCHES
- 11) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



### D2968-5 RING

### D2968-5 RING



USE D2968-1 STEM  
FOR -041  
USE D2968-3 STEM  
FOR -043

### D2968-041 AND D2968-043 TOW RING:

- 12) WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING
- 13) HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI
- 14) FINISH: CAD PLATE ENTIRE ASSEMBLY PER  
QQ-P-416F CLASS I TYPE II  
POWDER COAT WHITE (REF 4.3.5.2) PER DART  
QSI 005 4.3 (EXCEPT THREADS)

C	07.04.17	2.050 WAS 2.000, UPDATE NOTES
B	00.05.31	R0.125 AND R0.210 WERE 0.060 x 45°
A	00.03.07	NEW ISSUE
DESIGN	DRAWN BY	<b>DART</b> DART AEROSPACE LTD. MARKESBURRY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2968
DATE	TITLE	SCALE 1:1
07.04.17	TOW RING	

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2-275  
1-05  
1-40

